

REMARKS

Applicants have carefully considered the February 15, 2005 Office Action, and the amendments above together with the comments that follow are presented in a bona fide effort to address all issues raised in that Action and thereby place this case in condition for allowance. Claims 1-3 are pending in this application. In response to the Office Action dated February 15, 2005, claims 1 and 2 have been amended. Claim 1 has been amended to further clarify the present claimed subject matter. Claim 2 has been amended to correct an obvious typographical error. Care has been exercised to avoid the introduction of new matter. Indeed, adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure as, for example, the depicted embodiments and related discussion thereof in the written description of the specification. Care has been exercised to avoid the introduction of new matter.

Applicants submit that the present Amendment does not generate any new matter issue or any new issue requiring any further search and/or consideration. Further, the present Amendment places the application in better form for appeal by materially reducing or simplifying the issues on appeal. Accordingly, entry of the Amendment is respectfully requested.

Claim 1 was rejected under 35 U.S.C. § 103(a) as being obvious over Farnworth et al. (U.S. Pat. App. Pub. No. 2003/0093173, hereinafter "Farnworth") in view of Sepe, Jr. (U.S. Pat. App. Pub. No. 2001/0047213, hereinafter "Sepe"). Dependent claim 2 was rejected under 35 U.S.C. § 103(a) as being obvious over Farnworth in view of Sepe and further in view of Faruque et al. (U.S. Pat. App. Pub. No. 2003/0149500, hereinafter "Faruque"). Dependent claim 3 was rejected under 35 U.S.C. § 103(a) as being obvious over Farnworth in view of Sepe and further in view of Iida et

al. (U.S. Pat. No. 4,816,860, hereinafter "Iida"). Applicants traverse the separate rejections of claims 1-3 under 35 U.S.C. § 103(a).

The Examiner, at page 3 of the final Office action, admitted that the primary reference, Farnworth, is silent as to a three-dimensional object generating system that is connected to a user terminal through a network, that the camera is monitored through a network, and that the remote operation means exist for remotely operating the three-dimensional plotter through the network. In an attempt to remedy these deficiencies, the Examiner relied on the secondary reference to Sepe. The Examiner concluded that it would have been obvious for one of ordinary skill in the art to modify the system of Farnworth to include the remote monitoring and controlling system taught by Sepe, with the expectation of achieving real-time interactive hardware operation, as suggested by Sepe. See page 3 of the Office action.

Independent claim 1, as amended, describes a three-dimensional object generating system. The system comprises a user terminal; and a three-dimensional plotter system connected to the user terminal through a network. The three-dimensional plotter system comprises a three-dimensional plotter, a monitoring camera for imaging the operating conditions of the three-dimensional plotter, and a three-dimensional plotter controlling computer for controlling the three-dimensional plotter. The three-dimensional plotter system comprises a laser stereolithography system and the three-dimensional plotter comprises a laser stereolithography device. The user terminal comprises three-dimensional data generation means for generating three-dimensional data representing a three-dimensional object, a plotter data generation means for generating data for a three-dimensional plotter from the three-dimensional data representing the three-dimensional object, monitoring means for receiving and displaying a video from the monitoring camera on the side of the three-dimensional plotter system through the network, to monitor the operating conditions of the three-

dimensional plotter, and remote operation means for remotely operating the three-dimensional plotter through the network.

Applicants submit that Farnworth is a conventional laser stereolithography system that is operated by a dedicated operator at a single location where the laser stereolithography system is installed. Applicants emphasize that Farnworth fails to disclose or remotely suggest providing a laser stereolithography system, capable of utilizing a three-dimensional plotter (a laser stereolithography device), from a plurality of locations, much less provide a system in which a designer can remotely operate the three-dimensional plotter.

The Examiner's proposed modification of Farnworth's stereolithography system to include remote monitoring, rather than conventional on-site monitoring (i.e. a dedicated operator at a single location), would change the principle of operation of Farnworth and is, therefore, a legally insufficient ground upon which a *prima facie* case of obviousness may be based. Indeed, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959). Furthermore, as the Examiner's assertion is not derived from the teachings or suggestions of the applied prior art, the only apparent teaching from which the Examiner's assertion can be derived is in Applicants' disclosure, which, of course, can not be properly relied upon by the Examiner to support the ultimate legal conclusion of obviousness under 35 U.S.C. § 103. *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 2985).

Moreover, Sepe is generally related to network-based control system for monitoring and controlling a remote device over a network. Similarly, Faruque is generally related to computer-assisted design of models. Iida relates to a video camera. None of the secondary references disclose

that their respective systems can be used to monitor and control a three-dimensional object generating system, much less a laser stereolithography system, as required in claim 1. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge readily available to one of ordinary skill in the art. *In re Kotzab*, 217 F.3d 1365, 1370 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants submit that the Examiner has not established a prima facie basis to deny patentability to the claimed subject matter under 35 U.S.C. § 103, for lack of the requisite factual basis and lack of the requisite realistic motivation. Based upon the arguments submitted supra, Applicants submit that the Examiner's rejections under 35 U.S.C. § 103 are factually and legally erroneous. Applicants, therefore, solicit the Examiner to reconsider and withdraw each of the rejections of claims 1-3 under 35 U.S.C. § 103.

It is believed that all pending claims are now in condition for allowance. Applicants therefore respectfully request an early and favorable reconsideration and allowance of this application. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, the Examiner is invited to call Applicants' representative at the telephone number shown below.

**Application No.:** 10/648,234

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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